

NEW PROGRAM PROPOSAL FORM

Sponsoring Inst	itution(s):	Lindenwood	University
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Program Title: Biological Sciences

Degree/Certificate: Bachelor of Science in Biological Sciences

Options: Click here to enter text.

Delivery Site(s): St. Charles Campus, St. Charles MO

CIP Classification: 260101

*CIP code can be cross-referenced with programs offered in your region on MDHE's program inventory highered.mo.gov/ProgramInventory/search.jsp

Implementation Date:

2015

Cooperative Partners:

Aick here to enter text.

*If this is a collaborative program, form CL must be included with this proposal

AUTHORIZATION:

Dr. James Evans, President

Name/Title of Institutional Officer

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Dr. Greg Anderson

636-949-4122

Person to Contact for More Information

Telephone



STUDENT ENROLLMENT PROJECTIONS

Year	1	2	3	4	5
Full Time	172	170	165	160	160
Part Time	0	0	0	0	0
Total	172	170	165	160	160

Please provide a rationale regarding how student enrollment projections were calculated:

Projections are based on recent faculty cuts (a 15% reduction in staff) in the Department of Biological Sciences which will reduce the ability to sustain the prior rate of growth of approximately 7.6% per year in the Bachelor of Science Program. As a result of these cuts we expect the program enrollment numbers to level off or decline in the near future and return to the previous levels last seen in 2011. Prior to this staffing reduction enrollment in the Bachelor of Science Program showed a steady increase from 140 fulltime students in 2011 to 172 students in 2014, an increase of 23% in three years.

Provide a rationale for proposing this program, including evidence of market demand and societal need supported by research:

This minor change in the program essentially increases the required curriculum by only one course in the major and reduces the number of required electives by one course. It allows students to more closely tailor their degree to their own goals through their choice of electives and have that reflected by the area of emphasis of their choosing. Students may also elect not to specialize and retain the standard Bachelor of Science degree in Biology without an area of emphasis. This modification will not require any substantial changes in the Department but will, at the same time, provide a degree that more closely aligns with the goals and ambitions of the student. This enhance specialization should be attractive to a wider array of potential undergraduates and improve acceptance rates into graduate and professional studies.



A. Total credits required for graduation: 137-140

B. Residency requirements, if any: NA

C. General education: Total credits: 57-59

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
	6	English Composition
	3	Communications
	9	Humanities
	3	Fine Arts
	3	History & Government
	9	Culture & Civilization
	6	Social Sciences
	2	Freshman Experience
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D. Major requirements: Total credits: 71

Course Number	Credits	Course Title
BSC 24000	4	Introduction to Biological Diversity (4)
BSC 24400	4	Introduction to Cellular and Molecular Biology (4)
BSC 24800	4	Introduction to Ecology and Evolution (4)
BSC 28500	1	Methods and Writing for Biology (1)
BIO 32000	4	Plant Biology
BSC 32400	4	Animal Biology
BSC 40400	4	Cell Biology
BSC 40800	4	Genetics
BSC 46400	3	Evolution
BSC 46500	4	Ecology
BSC 48500	ı	Biology Seminar
BSC 48600	I	Biology Synthesis
CHM 23000	3	General Chemistry 1
CHM 23100	3	General Chemistry 2
CHM 23200	3	General Chemistry 3 (3)
CHM 24100	1	General Chemistry 2 Laboratory (1)

CHM 24200	1	General Chemistry 3 Laboratory (1)	•
CHM 36100	. 4	Organic Chemistry I (4)	
CHM 36200	4	Organic Chemistry II (4)	
MTH 24100	3	Statistics for Natural Science (3)	
MTH 17100	3	Survey Calculus	
PHY 25100	4	Introduction to Physics I	
PHY 25200	4	Introduction to Physics II	

E. Free elective credits:

10

(Sum of C, D, and E should equal A.)

- F. Requirements for thesis, internship or other capstone experience: $\underline{\mathsf{none}}$
- G. Any unique features such as interdepartmental cooperation: none



PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

Institution Name

Lindenwood University

Program Name

BS in Biological Sciences

Date 16 December, 2014

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

1. Student Preparation

Any special admissions procedures or student qualifications required for this program
which exceed regular university admissions, standards, e.g., ACT score, completion of
core curriculum, portfolio, personal interview, etc. Please note if no special preparation
will be required.

No special requirements above those required for admission to the University.

Characteristics of a specific population to be served, if applicable.
Biology majors that wish to specialize in one of the three tracks (Biology, Cellular and
Molecular Biology, or Ecology and Evolutionary Biology). This also includes pre-health
and pre-profesional majors, biotechnology students, environmental students, and students
seeking to pursue graduate studies.

2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this
 degree/certificate.
 All fulltime faculty in the Department of Biological Sciences must have a terminal degree
 (Ph.D) in their field.
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use
 the term "full time faculty" (and not FTE) in your descriptions here.
 One hundred percent of the Biological Science (BSC) required courses in the major and
 those numbered above 200 will be assigned to full time faculty.
- Expectations for professional activities, special student contact, teaching/learning innovation.
 Faculty are expected to maintain currency in their field, and update coursework and labs as needed. Small class sizes and labs taught by the lecture instructor ensures close contact with students to maximize their educational experience.

3. Enrollment Projections

- Student FTE majoring in program by the end of five years.
 Current trends in enrollment over the last few years show an increase from 163 majors in 2011 to 194 students in the 2014. Growth in the program over the last three years has averaging about 6%. Unfortunately, a recent 15% reduction in faculty staffing levels in the Department of Biological Sciences will likely result in a reduction from current enrollment levels back to lower levels last seen in 2011.
- Percent of full time and part time enrollment by the end of five years.
 One hundred percent of our students are full time, we currently have no part time students enrolled and have not had any for at least the last 5 years.

4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.
 Over the last 5 years, the number of graduates has ranged from a low of 15, to a high of
 21 (a 40% increase). Based on projected reduced enrollment combined with lower
 staffing levels, we expect graduate numbers to revert back to previous lower numbers of
 15 graduates in three years, and stabilize at those lower levels at the five year mark.
- Special skills specific to the program. N/A
- Proportion of students who will achieve licensing, certification, or registration.
 N/A
- Performance on national and/or local assessments, e.g., percent of students scoring above
 the 50th percentile on normed tests; percent of students achieving minimal cut-scores on
 criterion-referenced tests. Include expected results on assessments of general education
 and on exit assessments in a particular discipline as well as the name of any nationally
 recognized assessments used.
 Data not tracked by institution.
- Placement rates in related fields, in other fields, unemployed.
 Data not tracked by institution.
- Transfer rates, continuous study. Data not tracked by institution.

5. Program Accreditation

• Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide a rationale.

There is no accreditation agency for Biology Programs. The University is fully accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools

6. Alumni and Employer Survey

- Expected satisfaction rates for alumni, including timing and method of surveys.
 Data not tracked by institution.
- Expected satisfaction rates for employers, including timing and method of surveys. Data not tracked by institution.

7. Institutional Characteristics

• Characteristics demonstrating why your institution is particularly well-equipped to support the program.

This is only a minor modification to a successful program and Department that has been well established for many decades and has an outstanding track record at Lindenwood University.